

The 1934 Aerial Survey of Connecticut at the State Library

In 1933, Governor Wilbur L. Cross recommended an aerial survey of the entire state of Connecticut to the State Planning Board. The governor and the board saw such a survey as an essential tool in planning for the state's future. The survey would be the first government sponsored aerial survey of an entire state. Fairchild Aerial Surveys, Inc. of New York City, an innovator in aerial photography and aviation, conducted the aerial photography for Connecticut's survey. The result were thousands of individual photographs, which were pieced together to make a massive mosaic view of the state.

Fairchild Aerial Surveys was perhaps the only company capable at this time of doing a survey of a complete state. The company was named after its founder, Sherman M. Fairchild. He was a restless scientific genius who came from a wealthy family and formed companies around his inventions. After forming a company to manufacture his revolutionary aerial survey camera, he started Fairchild Aerial Surveys, Inc. in 1922 to exploit the camera's innovations. He then formed a company to build airplanes for aerial surveys.

Fairchild had previously lobbied Gov. John Trumbull in the late 1920's to survey the state. But at that time, no one state agency could pay for an aerial survey. The project waited till the State Planning Board coordinated the effort.

The aerial photography was done on good weather days in March and April 1934. The time of year was chosen for leaf-off conditions. Optimum time of day for photography was from 10 AM until 2 PM. A total of 153 flying hours were required for the four airplanes to cover the 5,004 square miles of the state.



Completed mosaic in the hangar at Brainard Airfield



Fairchild FC-2W airplane

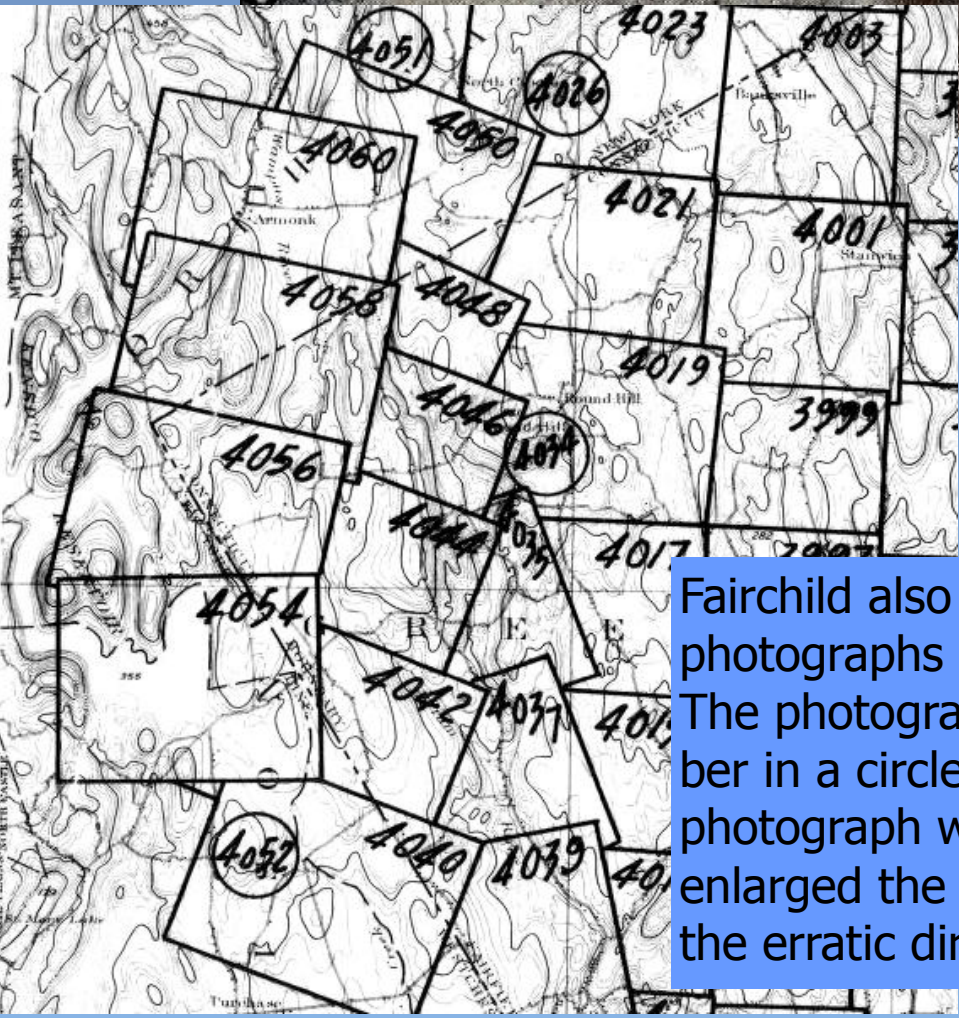
Four airplanes did the aerial photography for the Connecticut survey. Fairchild owned three of the airplanes used, probably Fairchild manufactured FC-2W cabin airplanes. They had heated, enclosed cabins so that pilot and photographer could endure long hours in the air. It was a high wing monoplane designed to have an unobstructed downward view. The wings also folded for transport by railroad to survey locations. The fourth airplane belonged to the Connecticut National Guard, 43rd Air Division, 118th Observation Squadron. This was a Douglas O-38E two-seat, open cockpit observation biplane that was standard with the Air Corps at the time. The survey flights were flown at 11,400 feet and at 100 miles per hour. The photography was taken vertically with a 50% overlap. That is, each photograph would include half of the previous exposure. Photographs were taken in flight lines of 16 to 20 miles that were plotted from topographic maps.

CNG crew mounting a K-3 camera



CNG Douglass O-38E Airplane

The camera used was a Fairchild K-3 aerial survey camera with a 9.5" focal length, F4.5 lens and a haze-reducing filter. The camera was mounted on a frame and had an electric motor advance and a timing device to automatically shoot pictures. The view-finder had two inked lines to aim for current exposure and overlap of image. The film was 9 inches wide and 75 feet long rolled in canisters. There were 100 exposures per roll. The exposures were 7.5" x 9" each. The scale was 1":1,200'. (The contact prints in the collection of the Connecticut State Library have the same scale.)



Index sheet detail



Sgt. William Gummer gluing images onto the mosaic.

There were 10,484 exposures made in the state survey of which many were unusable because of missed orientation, clouds or reflections. 8,745 images were finally indexed and used for the mosaic map. The project to create a photo-mosaic map from the thousands of aerial photographs was centered at Brainard Field airfield. The work took place in the assembly room of the Connecticut National Guard, 43rd Air Division, 118th Observation Squadron. Heading the project was William A. Duncanson, a supervisor from the state Highway Department. Seven to eight men were employed in assembling the mosaic.

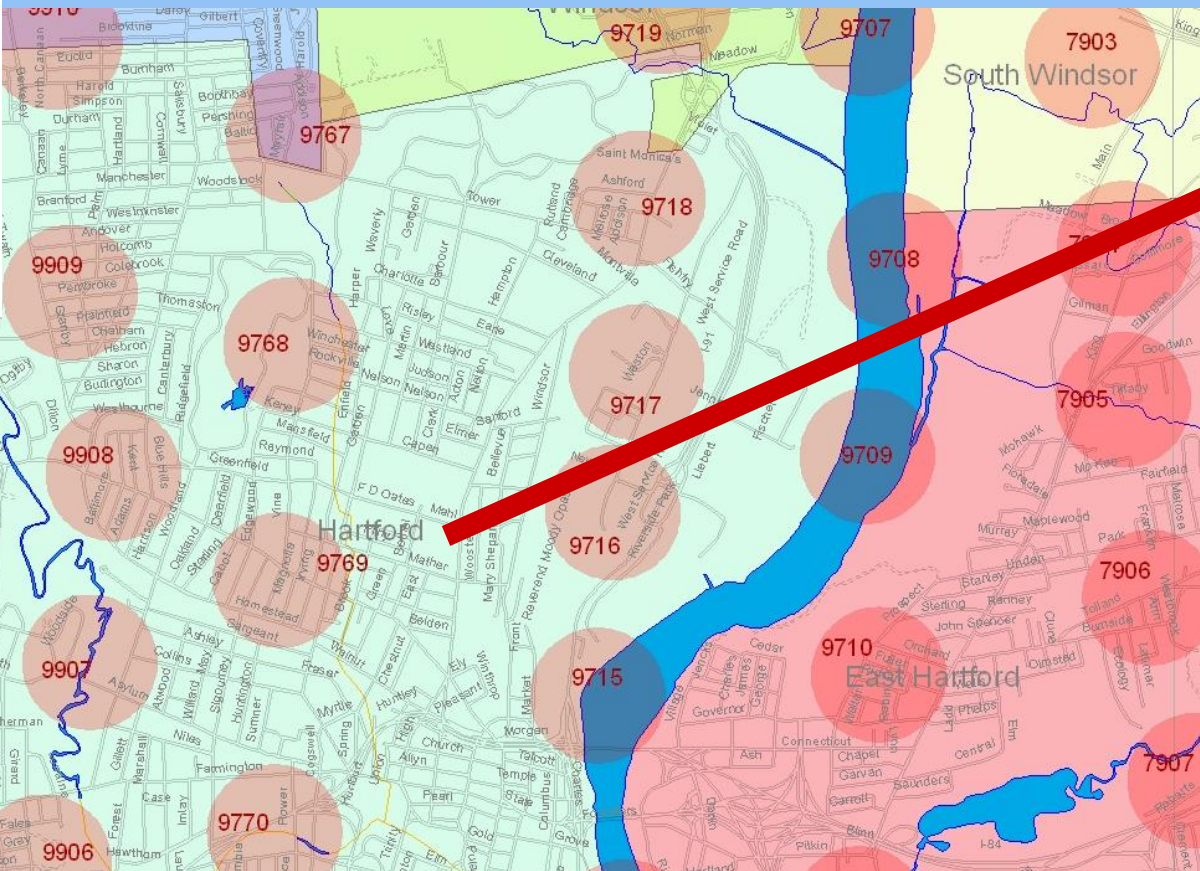
For More Info Go To: www.cslib.org/aerials

How Do You Find 1934 Aerials Images Online?

It's As Easy as 1-2-3

1
Go To:
<http://www.cslib.org/aerials>
Click on "1934 individual photos"

From the "Connecticut Aerial Surveys" page, click on "1934 Town Map"



3
Click on the dot closest to your area to view your image and metadata. Click the image further to zoom in.

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THERE'S MORE:

The 1965 Aerial Survey images will be available online soon.
1938 post-Hurricane oblique photos are now available online.

2
Click on the town for your area to find a street map with numbers.

